









## Processing aid for the conversion of plastics

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**Cited documents:**

 US5707945  
 US3857865  
 US4192930  
 EP0926173  
 EP0551818  
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**Abstract of EP1304210**

Partial esters solve many drawbacks of previous process aids, e.g. unfavorable effect on surface quality, inadequate homogeneity, tendency to migration and emission, fogging and blooming. Process aids for processing synthetic plastic compositions based on or containing partial esters, obtained by reaction of optionally unsaturated aliphatic and/or cycloaliphatic polycarboxylic acids or their anhydrides with monoalcohol and/or monoepoxides are new. Process aids for processing synthetic plastic compositions based on carboxylic acid partial esters (PE) or containing 18 C partial esters, of number average molecular weight 300-10000, obtained by reaction of optionally unsaturated aliphatic and/or cycloaliphatic 8-100C polycarboxylic acids or their anhydrides with monoalcohols and/or monoepoxides containing optionally unsaturated aliphatic, cycloaliphatic and/or aromatic ether groups, where at least 10% and at maximum 90% of the carboxyl groups of the polycarboxylic acids remain unreacted. An Independent claim is included for a synthetic plastic composition as above containing 0.05-10 wt.% process aids, e.g. fillers, heat stabilizers, light protection agents, antistatic, fire protection agent, reinforcing materials, impact toughness agent, antioxidant, propellant, or optical brightener.

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